teors are small and numerous, it will plainly be impossible to describe each one so minutely. Then it will be best to trace on a map as many of their tracks as possible, note the time of appearance of each, and give a general account of the shower, including all the points mentioned above. It will also be necessary to state the time of beginning and ending of the shower, and the time when it reached its height. This can best be determined by counting and recording the number of meteors that fall in each consecutive ten minutes.

Whenever meteors are numerous, it will be noticed that if we imagine their tracks to be produced backwards in the heavens they will all intersect at a common point. This is the radiant point, and its exact position is of such great importance that no observer should fail to determine it as accurately as possible.

The principal meteoric showers take place annually on the nights of the 9th, 10th, and 11th of August, and of the 12th or 13th of November. The August shower never attains the brilliancy which is sometimes displayed by the November one, but it is much more certain in its recurrence. Its radiant point is in the vicinity of the star β Camelopardali, while that of the November meteors is near the star γ Leonis. The nights which have just been mentioned are those on which it is most important to be on the watch for meteors. Nevertheless, they appear in greater or less numbers during almost every clear night, and as good observations of them are always valuable, the observer may rest assured that time so employed is never thrown away.

RECORDS BY THE KITE CORPS AT BAYONNE, N. J.

On page 161 of the MONTHLY WEATHER REVIEW for April, 1898, Mr. Allen communicated the results of 23 kite ascensions.

In the following table the records for ascensions Nos. 23–60 are given, bringing the record down to January 2, 1899. Mr. A. J. Henry has added the temperatures and winds from self-registers from New York City. At the beginning of the series the Weather Bureau thermometer in New York was 298 feet above ground and 314 above sea level, but on October 15, 1898, the instruments were moved to an adjacent building, and the new altitude of the thermometer is 313 feet above the ground and 350 feet above sea level. With regard to his own later observations Mr. Allen says:

I enclose a list of thermometer ascensions, Nos. 23 to 60, in continuation of those published by you in April, 1898. I have noted those ascensions made with the use of piano wire, of which the Bayonne Kite Corps has over 4,000 feet and is preparing to get more.

During November, December, and January I could not take more records, owing to the weather not being suitable for kiteflying and urgent calls upon my time, but I am hoping to begin regular ascensions soon. * * * Ascension No. 23 was the first made with piano wire.

For further details the reader is referred to the previous article in the April REVIEW.

It appears that Messrs. W. W. Hotchkins, Henry L. Allen, and William H. Mitchell organized themselves into the Bayonne Kite Corps on April 16, 1898, and that the home station is at Bergen Point. This step bespeaks a permanent interest in kiteflying for meteorological purposes that augers well for the future. It is to be hoped that larger kites with the Marvin meteorograph may eventually be brought into use at Bergen Point, Bayonne, N. J.

OBSERVATIONS AT RIVAS, NICARAGUA.

The records contributed for many years by Dr. Earl Flint, at Rivas, Nicaragua, include barometric readings. His present station is at 11° 26′ N., 85° 47′ W. The observations at 7:17 a. m., local time are simultaneous with Greenwich 1 p. m. The altitude of his barometer is 36 meters above sea level, but until the barometer has been compared with a standard it seems hardly necessary to publish the daily readings. The wind force is recorded on the Beaufort scale, 0–12. When cloudiness is less than $\frac{1}{10}$, the letter "F," or "Few," is recorded.

Thermometer ascensions made at Bergen Point, Bayonne, N. J., by the Bayonne kite corps.

Number.	Ascension. Date.	Ascension. P. M. Began.		Ascension. P. M. Ended.		Kite record. Altitude.	Kite record. Temperature. Max.	Kite record. Temperature. Min.	Local conditions. Temperature. Beginning.	Local conditions. Temperature. Ending.	Local conditions. Wind.	Local conditions. Sky.	New York. Temperature Beginning.	New York. Temperature Ending.	New York. Winds during ascensions. Direction.	New York. Winds during ascensions. Velocity.	Average daily temperature observed by Mr. Eadie, at Bayonne, N. J. Same day.	Second day.	Third day.
1	2	3		4		5	6	7	8	9	10	11	12	13	14	15	16	17	18
		H.	M.	H.	M.	Feet.	°	°	°	°			°	°		Miles.	°	°	°
23	April 30, 1898	9	15	10	00	370*	59	56	56	57	wnw.	Clear to cloudy.	62	60	nw.	8	58.5	61.5	56.5
24	May 14, 1898	8	35	10	00	400*	59	56	59	55	ssw.	Partly cloudy.	60	59	s.	7	61	55	56.5
25	May 31, 1898	7	40	8	30	200	70	68	68	68	nne.	Partly cloudy.	73	69	ne.	5	68.5	70	64.5
26	June 10, 1898	7	25	7	45	300	79	76	79	76	sw.	Cloudy.	69	62	se.	9	70	67.5	79
27	June 10, 1898	8	40	9	45	275	76	70	76	72	sw.	Partly cloudy.	61	60	se.	8	70	67.5	79
28	June 14, 1898	8	30	9	30	500	81	76	81	70	w.	Partly cloudy.	79	78	w.	8	78.5	76	62.5
29	June 20, 1898	9	00	9	50	200	73	64	72	65	wsw.	Partly cloudy.	69	68	sw.	12	68.5	66	64
30	July 8, 1898	7	50	8	15	300	80	78	80	79	sw.	Cloudy.	81	80	sw.	14	74.5	77	71
31	July 12, 1898	9	00	9	30	250-300	69	66	69	68	ne.	Cloudy.	66	66	ne.	18	66	64	74.5
32	July 14, 1898	8	55	9	45	500	73	72	73	73	sw.	Cloudy.	74	73	sw.	15	74.5	82	77.5
33	July 16, 1898	8	50	10	45	250	74	70	74	65	sw.	Partly cloudy.	76	73	w.	7	77.5	73.5	75
34	July 22, 1898	9	40	10	10	400	73	68	72	72	e.	Cloudy.	70	69	e.	10	76	70.5	74
35	July 23, 1898	4	30	5	50	200	73	68	73	71	se.	Cloudy.	72	70	se.	7	70.5	74	73.5
36	July 25, 1898	2	40	5	30	1,541*	78	71	78	74	se. to s.	Cloudy, clearing.	73	72	se.	13	73.5	77	75
37	July 27, 1898	11	53†	12	25†	375	78	74	78	78	ne.	Cloudy.	74	75	ne.	6	75	76	84
38	July 27, 1898	4	15	4	35	325	75	73	78	75	e. to se.	Cloudy.	77	76	e.	6	75	76	84
39	July 29, 1898	10	43†	11	20†	350	84	80	82	85	sw.	Partly cloudy.	78	79	w.	8	84	85.5	82
40	August 5, 1898	8	00	9	00	375	77	68	77	70	wsw.	Clear.	77	75	w.	13	76.5	76.5	78.5
41	August 6, 1898	8	45	9	35	500*	77	70	72	71	sw.	Partly cloudy.	76	75	w.	14	76.5	78.5	82.5
42	August 13, 1898	4	20	5	00	500	76	74	76	75	nw.	Partly cloudy.	76	76	nw.	7	73.5	71.5	73.5
43	August 25, 1898	7	20	7	35	325	78	75	76	76	sw.	Partly cloudy.	80	80	sw.	24	79.5	74.5	71.5
44	August 30, 1898	7	15	7	33	300	80	77	78	78	sw.	Clear.	81	80	sw.	17	80	83.5	86.5
45	August 30, 1898	8	00	8	20	300	79	77	78	78	sw.	Clear.	80	79	sw.	15	80	83.5	86.5
46	September 5, 1898	2	32	5	04	600*	90	84	88	85	sw.	Partly cloudy.	84	85	s.	11	85	83.5	78
47	September 8, 1898	8	05	9	05	500	61	58	61	61	s.	Clear.	65	65	s.	8	70.5	70	70
48	September 10, 1898	5	15	5	48	500	73	66	73	68	ne.	Partly cloudy.	72	70	n.	18	70	64	65.5
49	September 16, 1898	7	52	8	26	500	68	66	67	67	s.	Partly cloudy.	67	67	s	11	73	77	78.5
‡50	September 19, 1898.	7	57	8	40	300	74	70	72	70	nw.	Clear.	75	72	nw.	10	75	64	58.5
	September 19, 1898.	8	02	8	37	280	75	70	72	70	nw.	Clear.	74	73	nw.	8	75	64	58.5
‡51	September 24, 1898.	9	16	10	22	500	58	51	58	55	ne.	Cloudy.	54	53	ne.	12	64.5	55	68.5
	September 24, 1898.	9	22	10	30	475	58	53	58	55	ne.	Cloudy.	54	53	ne.	12	64.5	55	68.5
52	September 28, 1898.	7	31	9	00	500	67	60	62	59	sw.	Clear.	69	66	sw.	8	66	67	70
53	October 8, 1898	5	45	6	08	500	65	62	65	64	wsw.	P. cloudy to cl'dy.	65	64	w.	10	61.5	63	56
54	October 8, 1898	9	20	11	07	1,100*	64	55	64	55	nw.	Partly cloudy.	63	59	nw.	9	61.5	63	56
55	October 22, 1898	7	30	8	07	300	54	48	54	51	wsw.	Partly cloudy.	54	53	ne.	30	63.5	52	53
56	October 22, 1898	8	15	8	47	300	50	48	50	48	wsw.	Partly cloudy.	53	50	ne.	30	63.5	52	53
57	October 29, 1898	4	55	5	25	300	49	46	49	47	ne.	Cloudy.	51	51	ne.	6	44.5	46.5	50.5
58	October 29, 1898	9	00	9	40	300	47	45	47	46	ne.	Cloudy.	50	50	ne.	7	44.5	46.5	50.5
59	November 12, 1898	8	00	8	30	400	40	38	38	38	wsw.	Clear to p. cl'dy.	43	42	w.	4	41	40	47
60	January 2, 1899	12	57	4	12	1,095*	22	10	22	16	sw.	P. cloudy to clear.	14	17	w.	10	12	20	36

*Piano wire used. †A. M. ‡Ascensions Nos. 50 and 51—two thermometers on same kite line.

This station is situated on the western shore of Lake Nicaragua, not far from the eastern end of the western division of the Nicaragua Canal. The volcano Ometepe, on an island in Lake Nicaragua, is about 10 miles northeast of the station. Mr. Flint's records occasionally mention the presence of clouds in the early morning on the summit of this mountain.

Observations at Rivas, Nicaragua, December, 1898.

OBSERVATIONS AT 7:17 A. M. LOCAL (8 A. M. EASTERN STANDARD) TIME.

Date.	Temperature. Air.	Temperature. Dew-point.	Wind. Direction.	Wind. Force.	Upper clouds. Kind.	Upper clouds. Amount.	Upper clouds. Direction from.	Lower clouds. Kind.	Lower clouds. Amount.	Lower clouds. Direction from.	Daily rainfall.
	°	°									
1	77	72	ne.					ks.	9	ne.	0.07
2	78	74	ne.					f.k.	10	ne.	0.00
3	78	75	ne.	1				ks.	10	ne.	0.00
4	78	74	ne.	1				f.k.	10	ne.	0.00
5	77	70	ne.	3				f.k.	1	ne.	0.00
6	77	69	ne.	3	c.	1		f.k.	3	ne.	0.00
7	77	70	ne.	3				f.k.	2	ne.	0.00
8	76	69	ne.	3				k.	3	ne.	0.00
9	77	73	ne.	2				k.	10	ne.	0.30
10	76	70	ne.	1				k.	8	ne.	0.00
11	75	71	ne.	1	cs.	10	ne.				0.00
12	76	70	ne.	1	ck.	1	ne.				0.00
13	75	71	ne.	2				*	Few	ne.	0.00
14	76	70	ne.	2				k.	1	ne.	0.00
15	76	69	ne.	2		0			0		0.00
16	76	70	ne.	2				ks.	1	ne.	0.08
17	76	70	ne.	2-3				ks.	10	ne.	0.06
18	75	71	ne.	2-3				k.	5	ne.	0.00
19	75	71	ne.	1				k.	Few	ne.	0.00
20	76	66	ne.	0				k.	1	ne.	0.00
21	76	70	ne.	1				k.	1.5	ne.	0.00
22	72.5	69	ne.	0				k.*	Few	ne.	0.00
23	74.5	72	ne.	1				k.	Few	ne.	0.00
24	75	71	ne.	2				k.	1	ne.	0.00
25	75	72	ne.	2				k.	Few	ne.	0.00
26	74.5	61	ne.	2				k.*	Few	ne.	0.00
27	75	70	ne.	1				n.	10	ne.	0.28
28	73	72	ne.	0				k.	10	ne.	2.15
29	74	71	ne.	3				k.*	Few	ne.	0.00
30	75	71	ne.	3				ks.	1	ne.	0.10
31	76	72	ne.	2				ks.	1	ne.	0.25
Sums											3.14
Means	75.7										

*Cumuli on Ometepe.

OBSERVATIONS AT 8:43 P. M. SEVENTY-FIFTH (8 P. M. LOCAL) TIME.

Date.	Temperature. Air.	Temperature. Dew-point.	Wind. Direction.	Wind. Force.	Upper clouds. Kind	Upper clouds. Amount.	Upper clouds. Direction from.	Lower clouds. Kind.	Lower clouds. Amount.	Lower clouds. Direction from.
	°	°								
1	77	73	ne.	0					Few	
2	80	74	ne.	2					0	
3	79	73	ne.	1				f.	Few	ne.
4	81	76	ne.	2	ck.	5	ne.			
5	78	73	ne.	3				k.	10	ne.
6	79	73	ne.	1				k.	10	ne.
7	79	72	e.	2		0		*	0	
8	79	73	se.	2.5		0			0	
9	78	73	ne.	1				k.	Few	?
10	79	72	ne.	2		0			0	
11	79	73	ne.	1				f.ks.	8	
12	79	73	ne.	0		0			0	
13	79	73	ne.	2	c.	Few	ne.			
14	77	70	ne.	2	c.	0		*		
15	79	72	ne.	2		0		*	0	
16	77	70	ne.	1	c.	Few	ne.	*		
17	76	73	ne.	3				k.	10	ne.
18	76	73	ne.	1	ck.	2	ne.			
19	76	73	se.	1	c.	Few	se.			
20	79	72	se.	1	c.	Few	se.	*		
21	78.5	72	se.	0		0			0	
22	78.5	72	e.	0	cs.	Few	e.			
23	78	73	ne.	2		0			0	
24	78	71	ne.	1	c.	8	ne.			
25	78	73	ne.	2		0			0	
26	78	71	ne.	2				k.*	8	ne.
27	77	73	ne.	2				k.	4	
28	74	71	e.	0				k.	9	e.
29	78	73	ne.	3-4				f.k.	Few	ne.
30	78	75	ne.	1				ks.	Few	ne.
31	79	74	ne.	1		0		*	0	
Means	77.4									

*Cumuli on Ometepe.

Observations at Rivas, Nicaragua, January, 1899.

OBSERVATIONS AT 7:17 A. M. LOCAL (8 A. M. EASTERN STANDARD) TIME.

Date.	Temperature. Air.	Temperature. Dew-point.	Wind. Direction.	Wind. Force.	Upper clouds. Kind.	Upper clouds. Amount.	Upper clouds. Direction from.	Lower clouds. Kind.	Lower clouds. Amount.	Lower clouds. Direction from.	Daily rainfall.
	°	°									
1	76	73	ne.	2				k.	10	ne.	0.10
2	76	70	ne.	2	cs.	3		k.	7	ne.	0.00
3	76	70	ne.	2-3				k.	3	ne.	0.00
4	76.5	70	ne.	2				k.	2	ne.	0.12
5	76	70	ne.	2				k.*	Few	ne.	T.
6	76.5	69	ne.	1				ks.	3	ne.	0.08
7	76	71	ne.	1				f.k.	8	ne.	0.00
8	75	68	ne.	3				k.*	Few	ne.	0.00
9	75.5	70	ne.	1				k.*	Few	ne.	0.00
10	75	70	e.	1				k.	2	e.	0.00
11	77	70	ne.	2				f.k.	8	ne.	0.00
12	76	71	ne.	1	ck.			ks.	10	ne.	0.16
13	76	71	ne.	2	ck.		sw.	f.ks.	3	ne.	0.00
14	76	70	ne.	2	cs.	2	se	k.	1	ne.	0.43
15	75.5	71	ne.	3				k.	5	ne.	0.00
16	75.5	70	ne.	1-2	cs.	9	sw.	k.	10	ne.	0.00
17	76	71	ne.	1				ks.	10	ne.	0.00
18	75	69	ne.	1				k.	1	ne.	0.00
19	75	68	ne.	1				k.*	Few	ne.	0.00
20	74.5	68	ne.	3				k.*	Few	ne.	0.00
21	75	71	ne.	1	cs.	9	sw.	k.	1	ne.	0.01
22	74.5	68	ne.	1	c.	4	s.			se.	0.00
23	75.5	70	ne.	1				k.	10	ne.	T.
24	76	73	se.	0				k.	5	se.	0.00
25	75	71	ne.	2	c.	Few	sw.	k.	Few	ne.	0.00
26	76	71	ne.	2				k.	10	ne.	0.00
27	76	72	ne.	1				k.	1	ne.	0.00
28	74.5	71	se.	0	f.c.	6	sw.		1	se.	0.00
29	76	70	ne.	2	cs.	7	s.	k.	1	ne.	0.00
30	76	71	e.	2				k.	1	e.	0.00
31	75	71	ne.	1				k.	5	ne.	0.00
Sums											0.85
Means	75.8										

*Cumuli on Ometepe.

OBSERVATIONS AT 8:43 P. M. SEVENTY-FIFTH (8 P. M. LOCAL) TIME.

Date.	Temperature. Air.	Temperature. Dew-point.	Wind. Direction.	Wind. Force.	Upper clouds. Kind.	Upper clouds. Amount.	Upper clouds. Direction from.	Lower clouds. Kind.	Lower clouds. Amount.	Lower clouds. Direction from.
	°	°								
1	78	72	ne.	1				ks.	Few	ne.
2	78	72	ne.	1		0			0	
3	78	72	ne.	2-3				k.	Few	ne.
4	78.5	71	ne.	2		0		*	0	
5	78	72	ne.	1				k.	Few	ne.
6	78	72	ne.	2				ks.	10	ne.
7	78	69	ne.	3		0		*	0	
8	78	72	ne.	0		0			0	
9	78	72	e.	0		0			0	
10	78	73	ne.	1				ks.	10	ne.
11	78	72	e.	2	ck.	6	ne.			
12	78	73	ne.	2				k.	8	ne.
13	78	73	e.	1		0			0	
14	78	74	e.	0				k.	10	e.
15	78.5	69	ne.	3		0		*	0	
16	78	72	e.	2	c.	Few	e.			
17	78	73	e.	0	c.	10	sw.			
18	79	72	ne.	1	f.c.	5	ne.			
19	78	69	ne.	2-3	c.	Few	ne.	†		
20	78	68	ne.	2				f.k.	8	ne.
21	78	71	ne.	1	c. k.	8	sw.			
22	78	72	e.	2	c.	5	se.	k.		e.
23	78	73	se.	0	cs.	2	se.			
24	79	73	se.	1	cs.	3	se.	k.		
25	78	73	se.	2				k.	1	se.
26	78	74	se.	1				f.k.	2	se.
27	78	71	ne.	0		0		†	0	
28	78.5	71	e.	1	c.	Few	se.			
29	78	73	ne.	1				k.	8	ne.
30	79	73	ne.	2		0			0	
31	78	72	ne.	1				sk.	Few	ne.
Means	77.8									

*Cumuli on Ometepe. †Cap on Ometepe.

OBSERVATIONS AT HONOLULU.

Through the kind cooperation of Mr. Curtis J. Lyons, Meteorologist to the Government Survey, the monthly report of meteorological conditions at Honolulu is now made nearly in accordance with the new form, No. 1040, and the arrange-